Message

From: Nwosu, Bernard [Ben.Nwosu@WestonSolutions.com]

Sent: 9/27/2016 1:38:31 PM

To: Gaughan, Daniel [Gaughan.Daniel@epa.gov]; Nguyen, Lyndsey [Nguyen.Lyndsey@epa.gov]

Subject: CRU Background Data Reporting Criteria

Attachments: 081835.000.csv; 092420.000.csv; Background_8uRHr_CRU_GammaSurvey.pdf;

Background_13uRHr_CRU_GammaSurvey.pdf; SAT_cpm_Gamma Survey Map.pdf; Table-2 160913 SoilSampleLocation(HPIC)ScreeningData.pdf; Table-3 160913 SoilSample(Ludlum-

2241)ScreeningData.pdf

Good morning Dan/Lyndsey,

During our Rad. survey at CRU, the background reading taken with the 3x3/VIPER setup was 8 uR/Hr. The background reading taken with the HPIC (at Property C004) was an average of 9.15 uR/Hr (see Table-2).

Please review the 3 attached maps. Note that SAT's map is in counts per minute (cpm). We have generated 2 maps, one with threshold value 0 to 13 uR/Hr and the other 0 to 8 uR/Hr. There was no definite criteria for the former, but the latter map was generated based on background value collected with the 3x3. We plan to report either of the 2 maps based on background, 3x background, and so on. Therefore it becomes important to present the aerial view of the survey with an accurate background reading so that the entire area does not appear to be too clean or too contaminated as presented by either maps.

I have attached the raw data excel files generated by VIPER. A quick review of the data indicates low values around 7+, 8+, and 9+ uR/Hr. Although values in the 9s appears to be the mode number among the lower values.

If the HPIC provides a more accurate reading, should we consider using a number in the 9s as background, because it appears that the background value for this site has a wide range of values depending on where you collect the reading from.

Please let me know your thoughts.

Thanks,

Ben Nuosu

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